

Remarks

Request for Reconsideration

Applicants have carefully considered the matters raised by Examiner in the outstanding Office Action, but remain of the position that patentable subject matter is present. Applicants respectfully request reconsideration of Examiner's position based on the amendments to the claims and the following remarks.

Claim Status

Claims 1-11 and claims 13-20 are pending.

Claim 12 has been canceled.

Claims 1-11 and claims 13-20 have been amended herein.

Oath/Declaration

The oath or declaration had been objected as being defective because it does not identify the citizenship of each inventor properly.

Applicants' respectfully disagree. The citizenship of each inventor is properly listed. Both Jens Schaefer and Martin Steigerwald have German citizenship and Jonathan Heywood is a British citizen. Respectfully, the declaration is proper.

Claim Rejections – 35 U.S.C. § 112, second paragraph

Claims 1-20 had been rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Specifically, Examiner stated “the spur gear” in line 12 of claim 1-2; “the first ring gear” in line 13 of claims 1-2 and claim 10; “the sleeve” in line 19 of claim 1-2 and claim 4; “the latter” in claim 10; “the external ring” and “the externally toothed sleeve” in claim 16; and “the motor shaft of the BLDC motor” in claim 8 are lacking an antecedent basis.

Additionally, Examiner stated the language “preferably” in claims 7-8 and 13, and “any” in claims 18-19 rendered claimed subject matter indefinite.

Claims 1-20 has been amended herein to address each one of these points.

Prior Art Rejections

Claims 1, 3/1, 5/1, 6/1, 8/1, 10/1, 13/1, 14, 15, 16, and 17 had been rejected under 35 U.S.C. § 102 as being anticipated by Heer (U.S. Patent 6,328,006). Claims 11/1 and 12/1 had been rejected under 35 U.S.C. § 103(a) as being unpatentable over Heer in view of design choice. Moreover, Claim 7 had been rejected under 35 U.S.C. § 103(a) as being unpatentable over Heer in view of Decristofaro, *et al.* (U.S. Patent 7,144,468).

The present invention is distinguishable over Heer. Heer discloses a mechanism which uses an electric motor to adjust the phase angle of a camshaft of an internal combustion engine. However, Heer uses a wave generator/harmonic drive configuration, which is different from the present invention.

The shaft of the electric motor in the present invention is connected to the toothed coupling (24) and can be adjusted using the adjustment shaft (10) and wave ring (11). Unlike the present invention, the shaft in Heer is not connected in the same manner. The shaft in Heer is fixed either with the internal ring of a bearing or a flexible sleeve. Moreover, the present invention utilizes a configuration whereby a flexible sleeve is

externally toothed and press fit with the external ring of a roller bearing. The external toothing mates with the internal toothing of the first ring gear which mates to a screw and also with an output component. Unlike Heer, the sleeve in the present invention is externally toothed and plays an integral role in the operation of the adjustment of the camshaft. In Heer, the first flexible sleeve simply acts to allow angled movement along the shaft of the electric motor. It is not externally toothed and not configured in a pot-shape design, but rather it is of a hollow tubular shape. The other sleeve mentioned in Heer is also not externally toothed or of a pot-shape (the only component of pot-shaped design in Heer is gear). There, the sleeve is fixed to the drive gear via a bolt and collar. There is no torque transmitting connection between the sleeve and ring gear. Thus, due to the different components used to adjust a cam shaft and their configuration, the present invention is distinguishable over Heer.

Regarding claims 11 and 12, claim 11 has been amended herein, claim 12 has been canceled.

Regarding claim 7, as discussed above, claim 1 is distinguishable over Heer. Therefore, it is submitted that claim 7 is patentable over Heer and Decristofaro taken alone or in combination.

In view of the forgoing, it is submitted that the claims are patentable over the cited references taken alone or in combination

Conclusion

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance and such action is respectfully requested. Should any extensions of time or fees be necessary in order to maintain this Application in pending condition, appropriate requests are hereby made and authorization is given to debit Account No. 02-2275.

Respectfully submitted,

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